NPECCIA/SI/HTA-SIM-1-5> Copy No: 29 25X1 22-08-SCIENTIFIC INTELLIGENCE MEMORANDÚM GUIDED MISSILE INTELLIGENCE FROM THE KLYUCHI/KAMCHATKA COVERAGE 22 AUGUST 1957 JOB NO. 78TO4753 BOX NO. FOLDER NO. _ 2 TOTAL DOCS HEREIN _/ CIA/SI/HTA-SIM-I-57 25X1 CENTRAL INTELLIGENCE AGENCY 25X1

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: 	SCIENTIFIC INTELLIGENCE MEMORANDUM	
	"GUIDED MISSILE INTELLIGENCE FROM	
	THE KLYUCHI/KAMCHATKA	25X1D

22 August 1957

OFFICE OF SCIENTIFIC INTELLIGENCE

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PREFACE

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THIS OCTABLITIE T	retrigence memorandum provide	es a summary of the guided
missile intelligence	1	of the Klyuchi/Kamchatka
area	A brief treatment of the reas	ons for guided missile
intelligence interest	in the Klyuchi area is include	d as well as a discussion
of type of information	which it was hoped would be a	cquired
		¬ · ·
Detailed		data is continuing at
HT AUTOMAT; it is unlik	cely however, that future	analysis will
reveal any new informat	tion of sufficient guided miss	ile importance to alter
the conclusions reached	herein.	

The precise role of the Klyuchi area in the Soviet guided missile program continues to be the subject of further studies in OSI/CIA.

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•	GUIDED MISSILE INTELLIGENCE FROM
:	THE KLYUCHI/KAMCHATKA COVERAGE
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	PROBLEM
D .	To assess the guided missile intelligence
1D	of the Klyuchi/Kamchatka area.
	CONCLUSIONS
(1D	not reveal any specific indications of
	guided missile activity.
,	2. The probability that the Klyuchi area is the terminus rather than
	the launch point for a new guided missile test range between Novokazalinsk/
	Dzhusaly and Klyuchi areas is strengthened by the complete lack of evidence
- 🖷	of the extensive facilities associated with rangehead type activities.
1B 🚅	
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1	
X1D -	3. Within
1D	the best known opportunity for acquiring data which should answer
(1D	critical questions on the status of the Soviet ICBM program of
(I) 	probable new rangehead in the Novokazalinsk/Dzhusaly area.

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DISCUSSION	

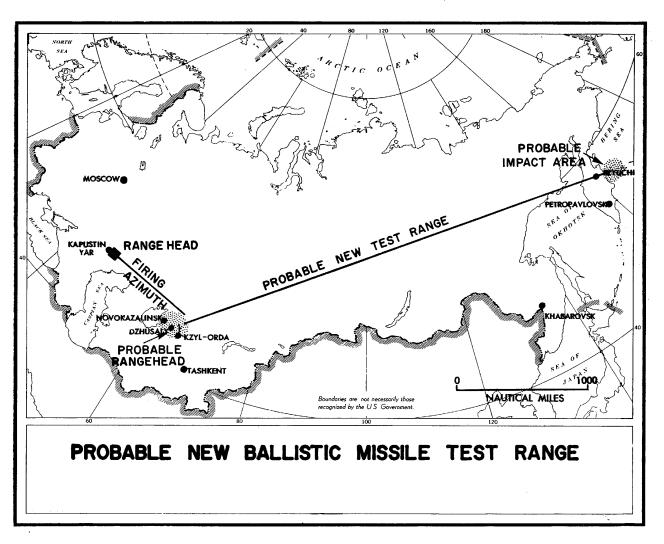
A. Guided Missile Intelligence Interest in the Klyuchi Area

1. By its geographic location alone, the Kamchatka Peninsula area, including its bordering bodies of water, has long been a suspect location for the terminus of a new long distance ballistic missile flight test range. Impact points here would provide the longest great circle distance between known and suspect launching points in western USSR. Flight test ranges of 3000 to 4500 nautical miles could be achieved.

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^{*}The Novokazalinsk/Dzhusaly area also includes the Kzyl Orda area.

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:	3. The evidence indicates Soviet preparations for testing either a
25X1B	ICBM or earth satellite vehicle (ESV). It is doubtful
	alone could provide an answer to the key question of whether the Klyuchi
-	area was intended to be the terminal impact area for an ICBM or the location
	of instrumentation sites for the ESV or both. However, the critical question
: :	to be answered is whether the Klyuchi area contains only instrumentations
:	sites or evidence that a launching site is being constructed there. Because
	of the overriding intelligence importance of the ICBM the remainder of this
	paper will consider only that aspect with emphasis on the status and timing
	of the program.
:	4. There was some question as to which area is to be the launching point
	and which area is to be the impact area for the ICBM test range. The available
; 	evidence strongly indicated that the Novokazalinsk/Dzhusaly area would contain
. •••	the launching point with the range terminus in the Klyuchi area. However, the
25X1D	relatively large amounts (about 21,000 tons of cargo off-loaded at
	Ust Kamchatsk and destined for the Special Construction Unit at Klyuchi could
	have indicated the start of construction of a launching area-possibly to serve
	a dual role, first as a launcher for test range and later as an operational
	launching site for TCBMs



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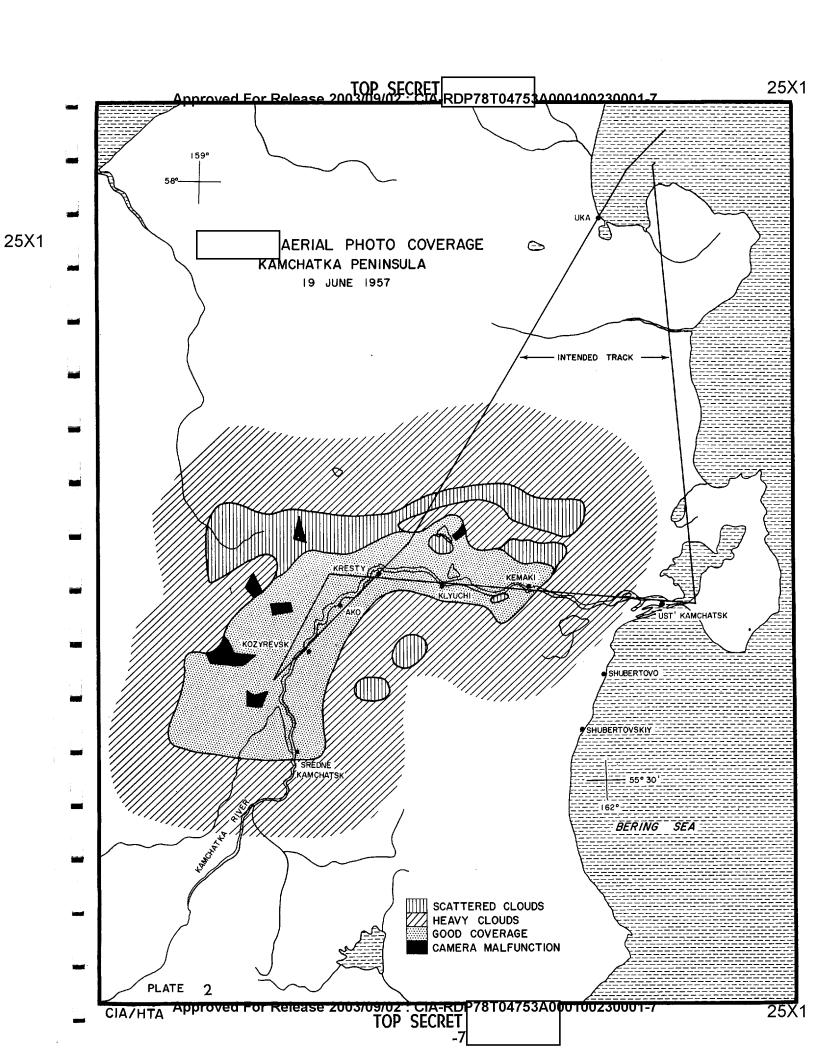
	:	Approved For Refeas p 2 10 12 19 14 - RDP 78 T0 4 7 5 3 A 0 0 0 1 0 0 2 3 0 0 0 1 - 7 2 5 X 1 A 2 5 X 1
25X1D 25X1D	:	B. Potential Guided Missile Information Available of Klyuchi Area
		1. <u>Klyuchi As An Impact Area</u> . Instrumentation sites for acquiring missile telemetry and trajectory data would probably be located along the
25X1D		terminal trajectory path.
25X1D		
25X1D		Klyuchi area it might be possible
		to determine an instrumentation site pattern from which the intended impact area
		could be deduced.
		2. Administrative and logistic support for the instrumentation sites

- in an impact area would probably be centralized on one location possibly Klyuchi. Approximately 200-400 personnel would be needed to operate the equipment and provide "housekeeping" functions. A rapid and dependable communication system is needed to connect this location with its instrumentation sites. In addition, an equivalent system is required to connect the central location with the rangehead control station. A modest transportation terminus and some warehouse-type storage facilities should be present.
- 3. <u>Klyuchi As A Launching Point</u>. The guided missile test rangehead area would contain many distinguishable features, the "readiness" of which should provide a direct indication of the timing of the missile program to be flight-tested thereat. There would be launching facilities consisting of concrete pads, servicing towers, control bunkers, fuel storage areas, electronic instrumentation sites, and special missile handling and fueling equipment.

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	-	A fairly large industrial complex should be located nearby to provide
		support type operations such as missile assembly, missile check-out, liquid
		oxygen production, and general industrial maintenance activites. A range
	السا	control center and communication network would also be located near the
	:	launching area. The whole rangehead area should be interconnected by a first-
	•	class road network with large radius turns for missile handling equipment.
		4. Impact Area vs Launching Point. The type, quantity, dispersion and
		distinguishability of missile facilities located in a rangehead area compared
	=	with those in an impact area definitely indicate that by far the greatest
05V4D		opportunity for acquiring information on the status of the Soviet ICBM program
25X1D		
25X1D	:	C. Data Acquired of Klyuchi Area.
25X1D		1.
25X1D	_	was acquired on the primary target - the
		town of Klyuchi and the surrounding terrain.
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2. Two military type installations are located in the town of Klyuchi; one has been completed for sometime, and the other is currently under construction. The installation under construction consists of seven large two story buildings of barracks or warehouse type ranging in size from 30' x 90' to 60' x 130', and several other smaller buildings in varying stages of construction. On the western outskirts of Klyuchi there were seven HOUND helicopters parked in a small clearing. No large airstrips were detected near the town of Klyuchi; a large area (approximately 1,000' x 11,000') is being cleared just north of the town of Kozyrevsk which looks like the early stages of airfield construction.

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Villages of the Kamchatka River Valley are connected by a narrow swath (approximately 20' wide) cut through the vegetation which is typical of communication or power line clearings. The transportation in the area is restricted to narrow trails except in the immediate vicinity of villages and logging camps. There is considerable river traffic consisting of barges and small craft. Nearly all activities, (towns, logging camps, trails, communication or power lines and river docks) are located on the southern side of the Kamchatka river indicating little activity to the immediate north.

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25X1D	D. Guided Missile Knowledge
	1. Klyuchi As A Launching Point.
25X1D ==	evidence of guided missile rangehead type activities. In fact there was
:	a complete lack of any evidence indicating that such activity was intended for
	the area or could be supported by the logistic capabilities evident in and
	around Klyuchi. Although it is recognized that a rangehead could be located
25X1D	in an area this is considered highly unlikely for the
	following reasons:
25X1D	a. Klyuchi has been the focal point in-
20/(12	dicating that the guided missile activity involved probably has its
	headquarters in Klyuchi;
. :	b. Rangehead activities would require considerable logistic
- -	support during both the construction and operational phases. There is
	no indication of such logistic activity in the Klyuchi area.
	c. The very rugged terrain and extremely poor weather conditions
	make this whole area of Kamchatka generally unfavorable for rangehead
	activities.
25X1D =	definitely weakens, but does not positively
100	exclude, the possibility of a guided missile rangehead being located in the
	Klyuchi area.
===	3. Klyuchi As An Impact Area. did not provide any
25X1D	direct indications of the guided missile test range instrumentation sites
***** 	normally associated with an impact area. Such sites would probably be dispersed
	along the terminal trajectory path and located on fairly elevated plateaus to

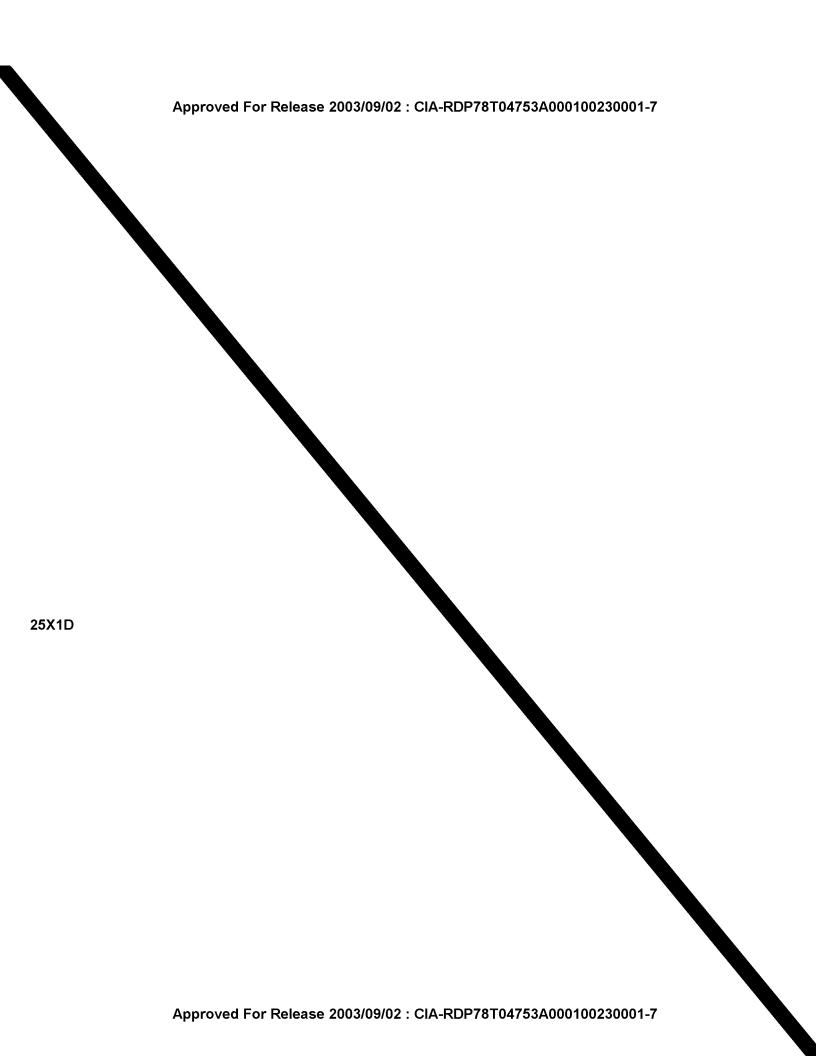
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		provide line-of-sight tracking on the incoming missile all the way to its impact point. Water impact is likely; therefore, some small "shacks" along the coastline with cables leading out into water to sonic detection systems
25X1D	· ,	would also be expected. Considering the probable locations of instrumentation sites the absence of any direct indications
25X1D		of such sites is not surprising.
25X1D		4. A heliport with seven HOUND helicopters on the western edge of Klyuchi. Although these helicopters could be utilized for many
		purposes, there is the distinct possibility that they service guided missile instrumentation sites dispersed along the terminal trajectory path.
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	1	5. The military installation currently under construction could be a	
		focal point for the impact area and as such could provide ample housing,	
		warehouse and general logistic support facilities for the outlying in-	
		strumentation and communication sites. The 21,000 tons of cargo destined for	
25X1D		Special Construction Unit at Klyuchi could well be going into this	
	-	new installation.	
		6. Impact Area vs Launching Point. The complete lack of any indications	
		of guided missile rangehead type activities in or around Klyuchi definitely	
		weakens this possibility. These negative results when considered in the	
		light of other associations with the guided missile program strengthen the	
	—	probability that the Klyuchi area will be the terminus for the new test range.	
	. :	The comparative likelihood of detecting indicators of the two activities	
05V4D	_	also becomes a factor favoring the "impact area" explanation.	
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	:		
	- -	E. The Unanswered Guided Missile Intelligence Questions.	
		1. This study further supports the belief that the Klyuchi area is	
		probably the terminus for a new guided missile test range and as such un-	
	-	doubtedly would contain instrumentation sites. The types, quantities and	
25X1D		locations of these sites are not known. the whole area	
		would probably reveal possible locations of instrumentation sites from which	
	-	a reasonable estimate of the intended impact point could be deduced.	
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